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Claims

[c1] We claim as our invention:

1. A putter-type club head comprising:

a body comprising a front section, an aft section, a heel section, a toe section and a central section, the body having a heel aperture defined by the heel section, central section, front section and aft section, the body having a toe aperture defined by the toe section, central section, front section and aft section, the front section having a face with a first mass port and a second mass port formed therein, the central section having a sole with a third mass port formed therein;

a first mass member disposed in the first mass port;

a second mass member disposed in the second mass port; and

a third mass member disposed in the third mass port, wherein the putter-type club head has a moment of inertia about the Iyy axis through the center of gravity of the club head of at least 500 g-cm^2.

[c2] 2. The putter-type club head according to claim 1 further comprising a crown plate covering a recess within the central section of the body.

[c3] 3. The putter-type club head according to claim 2 wherein the crown plate comprises an alignment indicia.

[c4] 4. The putter-type club head according to claim 1 wherein each of the first mass member, the second mass member and the third mass member is composed of a material with a density greater than the density of the material of the body.

[c5] 5. The putter-type club head according to claim 1 wherein each of the first mass member, the second mass member and the third mass member is composed of a material having a density ranging from 6.0 g/cm^3 to 20.0 g/cm^3.

[c6] 6. The putter-type club head according to claim 5 wherein each of the first mass member, the second mass member and the third mass member is composed of a material selected from the group consisting of brass, stainless steel, tungsten, silver, gold, nickel, nickel based alloys, iron based alloys, tin, copper and platinum.

[c7] 7. The putter-type club head according to claim 1 wherein the body is composed of a material having a density ranging from 0.90 g/cm^3 to 6.0 g/cm^3.

[c8] 8. The putter-type club head according to claim 1

wherein the body is composed of a material selected from the group consisting of aluminum, aluminum alloy, magnesium, magnesium alloy, titanium and titanium alloy.

[c9] 9. The putter-type club head according to claim 1 wherein the sole wall of the central section has a slot proximate to the front section.

[c10] 10. A putter-type club head comprising:
a body composed of an aluminum material having a density ranging from 2.0 g/cm^3 to 3.0 g/cm^3, the body having a heel aperture and a toe aperture, the body having a front-to-rear length within 1.5 centimeters of a heel-to-toe width of the body; and
at least three mass members positioned within the body, each of the mass members being composed of a material having a density ranging from 6.0 g/cm^3 to 20.0 g/cm^3.

[c11] 11. The putter-type club head according to claim 10 wherein the mass members are positioned equidistant from each other.

[c12] 12. The putter-type club head according to claim 10 wherein the body is composed of an aluminum alloy.

[c13] 13. The putter-type club head according to claim 10 wherein each of the mass members is composed of a

material selected from the group consisting of brass, stainless steel, tungsten, silver, gold, nickel, nickel based alloys, iron based alloys, tin, copper and platinum.

[c14] 14. A putter-type club head comprising:
a body comprising a front section, an aft section, a heel section, a toe section and a central section, the body having a heel aperture defined by the heel section, central section, front section and aft section, the body having a toe aperture defined by the toe section, central section, front section and aft section, the front section having a face with a first mass port and a second mass port formed therein, central section having a sole with a third mass port formed therein, the body is composed of a material having a density ranging from 0.90 g/cm^3 to 6.0 g/cm^3;
a first mass member threadingly engaged in the first mass port;
a second mass member threadingly engaged in the second mass port; and
a third mass member threadingly engaged in the third mass port,
wherein each of the first mass member, the second mass member and the third mass member is composed of a material having a density ranging from 6.0 g/cm^3 to 20.0 g/cm^3.

[c15] 15. A putter-type club head comprising:
a body comprising a front section, an aft section, a heel section, a toe section and a central section, the body having a heel aperture defined by the heel section, central section, front section and aft section, the body having a toe aperture defined by the toe section, central section, front section and aft section, the front section having a face with a first mass port and a second mass port formed therein, the central section having a sole with a third mass port formed therein, the body has a mass ranging from 200 grams to 1000 grams;
a first mass member threadingly engaged in the first mass port;
a second mass member threadingly engaged in the second mass port; and
a third mass member threadingly engaged in the third mass port,
wherein each of the first mass member, the second mass member and the third mass member has a mass of at least 10 grams.

[c16] 16. The putter-type club head according to claim 15 wherein each of the first mass member, the second mass member and the third mass member has a mass of at least 20 grams.

[c17] 17. The putter-type club head according to claim 15 wherein the first mass member, the second mass member and the third mass member are positioned an equal distance from each other.

[c18] 18. The putter-type club head according to claim 15 wherein the first mass member and the second mass member have substantially the same mass, and the third mass member has a mass greater than the first mass member.

[c19] 19. A putter-type club head comprising:
a body comprising a front section, an aft section, a heel section, a toe section and a central section, the body having a heel aperture defined by the heel section, central section, front section and aft section, the body having a toe aperture defined by the toe section, central section, front section and aft section, the front section having a face with a first mass port and a second mass port formed therein, the central section having a third mass port and a fourth mass port formed therein, the body has a mass ranging from 100 grams to 400 grams;
a first mass member threadingly engaged in the first mass port;
a second mass member threadingly engaged in the second mass port;
a third mass member threadingly engaged in the third

mass port;

a fourth mass member threadingly engage in the fourth mass port; and

a crown plate disposed on the central section, the crown plate composed of a non-metallic material.

[c20] 20. A putter-type club head comprising:

a body composed of an aluminum material having a density ranging from 2.0 g/cm^3 to 3.0 g/cm^3, the body having a heel aperture and a toe aperture, the body having a front-to-rear length within 1.5 centimeters of a heel-to-toe width of the body, the body having a height of from 1.0 centimeters to 2.5 centimeters; and

at least three mass members positioned within the body, each mass members being composed of a material having a density ranging from 6.0 g/cm^3 to 20.0 g/cm^3.